

4842. TRANSACTIONS # 286022

Kylb

**Application for Permit to Divert  
San Juan-Chama Project Water in the State of New Mexico**

APR 12 2003  
City of Santa Fe  
Santa Fe, NM

**1. Co-Applicants**City of Santa Fe (City)

P. O. Box 909

Santa Fe, New Mexico 87504-0909

Attention: Galen Buller, Director, Sangre de Cristo Water Division, (505) 955-4200County of Santa Fe (County)

605 Letrado

Santa Fe, New Mexico 87505

Attention: Gary Roybal, Director, Santa Fe County Utilities Department (505) 986-6210

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SANGRE DE CRISTO WATER DIVISION  
SANTA FE, NEW MEXICO

**2. Quantity**Diversion Amount: 5,492.9 afy (5,605 afy ~~minus 2% conveyance loss~~) ACSConsumptive Use: 5,492.9 afy (5,605 afy ~~minus 2% conveyance loss~~) ACS**3. Period of Annual Use**

Continuous year-round diversion and use.

**4. Point of Diversion**

UNAD 011 X = 520,134, Y = 1,759,610

A. Physical Location: The new diversion intake structure will be located along the southeast river bank of the Rio Grande, approximately 3.3 miles downstream from the Highway 502 (Otoji) bridge, New Mexico State Plane Coordinates N1759663.52, E1666570.44, NAD 83. The location of the new diversion structure and associated facilities is illustrated in Attachment A.

B. Ownership of Property: The diversion will be constructed on lands owned by the United States Forest Service (USFS), subject to its approval. This approval is being sought concurrently through a process that includes the USFS preparation of an Environmental Impact Statement for the diversion structure and directly related water treatment and conveyance facilities.

C. Source of surface water supply: San Juan-Chama Project (SJCP) water.

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**5. Purpose of Use**

The purpose of use is to furnish a municipal water supply for the City and County of Santa Fe, New Mexico.

**6. Place of Use**

The City and County of Santa Fe.

**7. Diversion Structure**

The diversion structure is a screened pump intake that is conceptually illustrated in Attachment B and Attachment C. The diversion structure does not involve a dam or other flow barrier constructed across the river.

**8. Hydraulic Properties of Main Canal or Pipeline**

The water will be conveyed from the proposed diversion structure to a sediment removal facility and from there to a potable water treatment facility. See Attachment A for the general configuration and location of facilities related to this permit application.

**9. Hydraulic Properties of Storage Dam**

Not applicable.

**10. Additional Statements or Explanations**

The Co-Applicants have an urgent need to fully utilize their San Juan-Chama Project (SJCP) water by the direct diversion of this water from the Rio Grande in order to provide a reliable supply to the current and near term demands of their customers through 2010. All of the City's water currently is obtained from the Santa Fe River, a well field located within the City of Santa Fe, and the Buckman well field. Water provided to the County's water utility is primarily supplied by the City and the sources previously described. The combined current capacity of these three sources of supply is inadequate to provide a reliable supply to meet the current demands of the current customers of the City of Santa Fe municipal water system under existing adverse water supply conditions, which are expected to continue into the future. In addition to the current customer's demands, the Co-Applicants' ability to directly divert their SJCP allocation is a crucial component of their long-term regional water planning strategy to provide a reliable water supply to these customers.

This permit application seeks to obtain Office of the State Engineer (OSE) authorization to directly divert SJCP water from the Rio Grande in order to beneficially use this water more effectively. Although an existing OSE permit authorizes the use of the Co-Applicants' SJCP water, the City and County cannot fully access this water due to

the lack of an adequate physical means of diversion. As described more thoroughly herein, the current use of this SJCP water, which is used in part to offset Rio Grande depletions caused by pumping the Buckman well field, has not performed as originally intended due to groundwater flow constraints between the Rio Grande and the local aquifer.

This permit application thus seeks the direct diversion of all of the SJCP water contracted to the City and County in their 1976 *Contract for Furnishing a Municipal Water Supply for the City and County of Santa Fe, New Mexico* with Department of the Interior, Bureau of Reclamation. The diversion and consumptive use quantity for which OSE authorization is sought in this application is equal to 5,605 acre-feet per year, less an ~~2%~~ 2% loss from the point of delivery at the outlet of Heron Dam to the Otowi stream gage. A-5  
 The 2% loss factor is the adopted figure of the Rio Grande Compact Commission for the calculation of the amount of SJCP water released from Heron reservoir that is available at the Otowi stream gage. Losses downstream from the Otowi gage to the proposed diversion location are considered negligible due to the 3.3 mile distance and the nature of the river between these locations.

The Co-Applicants request that the State Engineer give separate consideration to this permit application although it will likely be related to an anticipated application by Las Campanas. Former State Engineer Thomas C. Turney in 2001 directed the City, the County and Las Campanas to share a single Rio Grande surface water diversion structure. Similarly, the USFS, which owns the land on which the proposed new diversion structure will be located, is requiring these entities to share a single diversion structure and has denied further consideration of allowing each entity to build its own, separate diversion facility. Therefore, all three entities plan to divert water from the same structure, with separate metering and methods for water rights accounting. The Co-Applicants anticipate that Las Campanas will submit its own separate permit application for State Engineer consideration.

As authorized by OSE permit RG-20516, et. al., the City originally planned to access a portion of the SJCP water by diverting groundwater from the Buckman well field which is located in close proximity to the Rio Grande. Because the Rio Grande is fully appropriated, the City currently uses a portion of the SJCP water to offset depletions of the Rio Grande caused by the Buckman well field operations, thereby keeping the Rio Grande whole and impairing no user of Rio Grande water. These groundwater withdrawals, after a short transient period of withdrawal of groundwater stored in the aquifer, were expected to induce recharge of the aquifer from the Rio Grande, thus replenishing the aquifer and replacing the City's groundwater withdrawals.

Unfortunately, the system has not performed as expected due to groundwater flow constraints between the bed of the Rio Grande and the local aquifer. The result is that the Buckman well field is not capable of sustained production of groundwater in a manner that will preserve the long-term use of the aquifer while providing for the full use of SJCP water.

Thus, direct diversion and treatment for potable water supply is required in order for the City and County to fully place their SJCP water to beneficial use. Therefore, the City and County seek a point of direct diversion for what has already been authorized by the State Engineer; the diversion and consumptive use of the Co-Applicants' San Juan-Chama Project water.

ACS The Co-Applicants seek the State Engineer's expedited approval of this application to directly divert and place to beneficial use their SJCP water in order to prevent water supply shortage through 2016 and in order to implement this critical component of the long-term regional water management strategy. The Co-Applicants also plan to seek State Engineer approval of additional permit applications or amendments after approval of this application to implement one or more of the following, but as yet insufficiently developed, concepts; return flow credits, aquifer storage and recovery of treated wastewater or other waters, and optimized conjunctive use management of water supply sources, and other projects. These and other long-term options and alternatives are being evaluated through the City and County long-term regional water management strategy. The long-term water management strategy is in initial preparation and the City and County intend to complete the strategy in 2004 and subsequently seek the necessary federal, state, and local approvals for its implementation. The time frame for identification, planning, obtaining the various required agency approvals, and construction of the projects required to meet the Co-Applicants' longer-term water supply needs necessitates an expedited approval of this permit.

ACS The Co-Applicants further request that operational flexibility be authorized by the OSE in its approval of this application. Specifically, the Co-Applicants request authorization to divert only their SJCP water in a calendar year up to amounts twenty-five percent greater than the ~~5,452.9~~<sup>5,485</sup> afy (referenced in item No. 2, above), provided that the five-year moving average of the annual diversion is not greater than ~~5,452.9~~<sup>5,485</sup> afy. The Co-Applicants further propose that this moving average would be calculated as the total diversions for the most recent year, plus the previous four years, divided by five. ACS

The Co-Applicants acknowledge the appropriateness of permit conditions that will limit their diversions to the amount of SJCP water that is available for release from upstream storage reservoirs, reduced by conveyance losses to the point of diversion. The Co-Applicants also recognize that cooperation with federal and state entities will be required in order to arrange for releases of SJCP water from storage reservoirs for delivery to the direct diversion location. The City further acknowledges that it has other water needs that may need to be met with SJCP water. These may include the City's continuing obligation to offset the Rio Grande depletions caused by the Buckman Well Field and the potential need to store SJCP water by exchange in Nichols and McClure reservoirs when native water cannot be stored in those reservoirs due to Rio Grande Compact constraints.

Granting the Co-Applicants' application will not impair the water rights of other water rights owners. The water that the Co-Applicants seek a permit to divert and beneficially use is a portion of New Mexico's apportionment of the Colorado River

system that has been imported from the San Juan River tributary of the Colorado River to the Rio Grande basin through the San Juan-Chama Diversion Project. Because this water is not native to the Rio Grande system and because it is and has been dedicated to the City and County of Santa Fe for the purpose of furnishing a municipal water supply, no other entity can be impaired by the City and County's use of the SJCP water. This water may be completely and consumptively used by the City and County, including wastewater reuse.

Granting the Co-Applicants' application is not contrary to conservation of water within the State of New Mexico. Water conservation advocates frequently cite Santa Fe's per capita water use as a benchmark that other municipal water purveyors should strive to attain. The Co-Applicants are committed to making water conservation one of its highest permanent priorities and making sure that water conservation measures continue to be successful. Therefore, the diversion and use of this water is not contrary to the conservation of the public waters of New Mexico.

Granting this permit application will benefit and help protect the public welfare of the State of New Mexico. By approving the Co-Applicants' application the public welfare of the State will be benefited and protected because their application will enable the City and County to avoid the negative impact associated with water shortage and the inability to provide for their respective customers' short and longer-term water needs. This diversion permit application seeks to provide an additional diversion location for the Co-Applicants' San Juan-Chama Diversion Project water in order to avoid this adverse outcome.

NEW MEXICO OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO ADD A NEW POINT OF DIVERSION FOR  
SAN JUAN-CHAMA PROJECT WATER IN THE STATE OF NEW MEXICO

ACKNOWLEDGEMENT FOR NATURAL PERSONS

I, John Rousso affirm that the foregoing statements are true to the best of my knowledge and belief.

CITY OF SANTA FE

ATTEST:

By: [Signature]

By: [Signature]

I, Gerald Gonzalez affirm that the foregoing statements are true to the best of my knowledge and belief.

COUNTY OF SANTA FE

ATTEST:

By: [Signature]

By: [Signature]

ACTION OF STATE ENGINEER

This application is approved/denied/partially approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare; and further subject to the following conditions: \_\_\_\_\_

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Witness my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_

\_\_\_\_\_, State Engineer

By: \_\_\_\_\_

EXHIBIT

'A' 800 Permit

## Purpose and Need

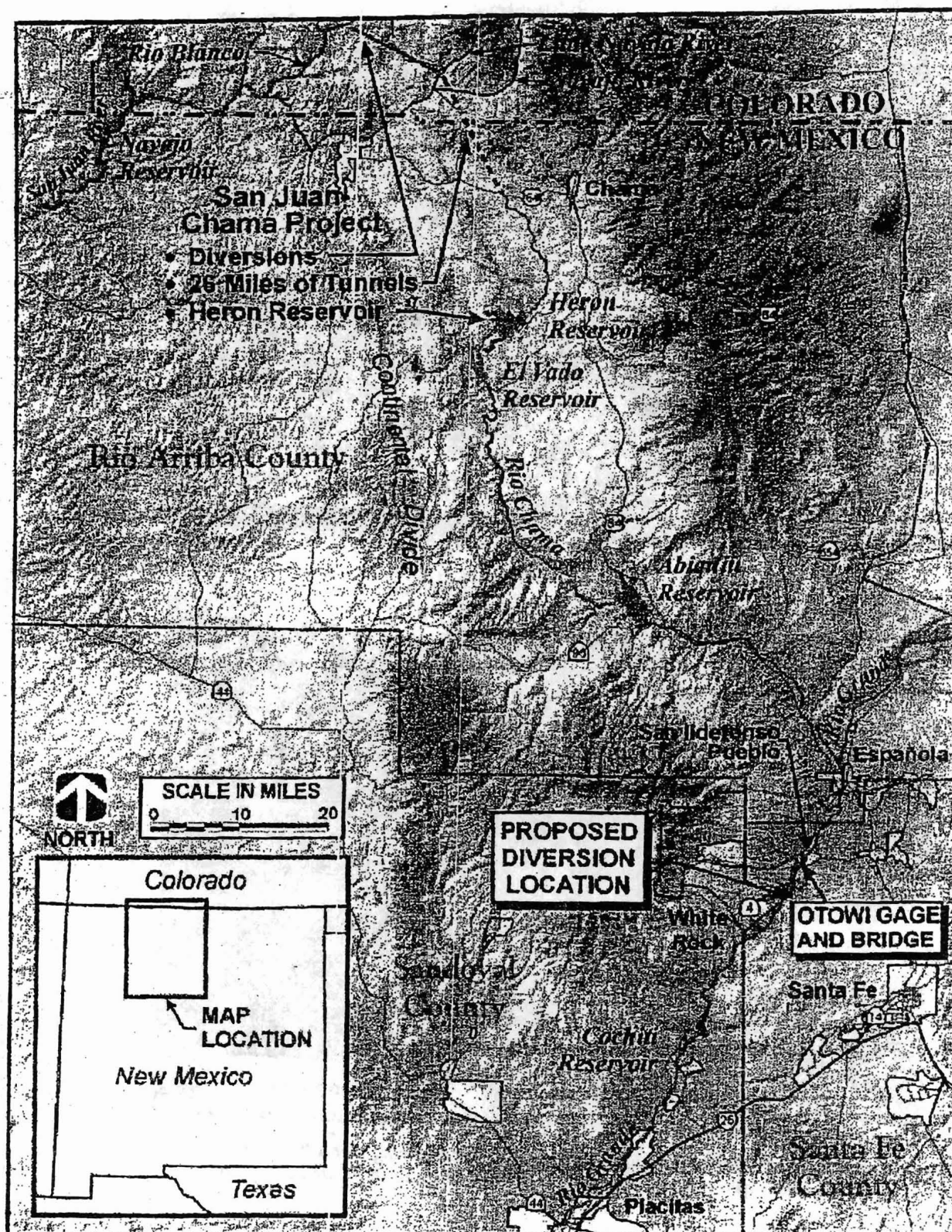
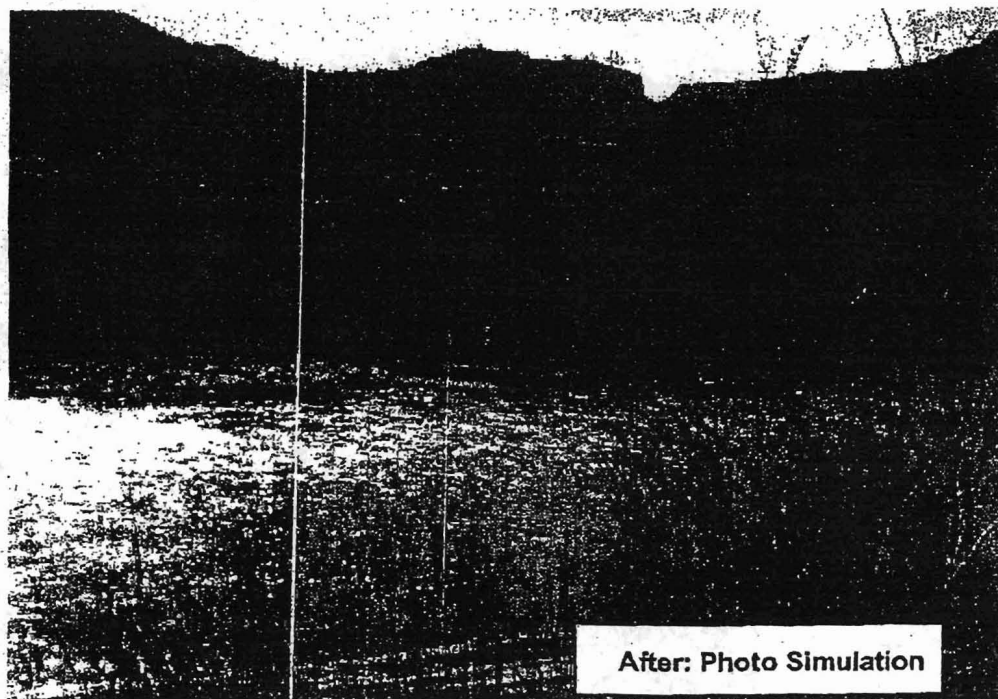
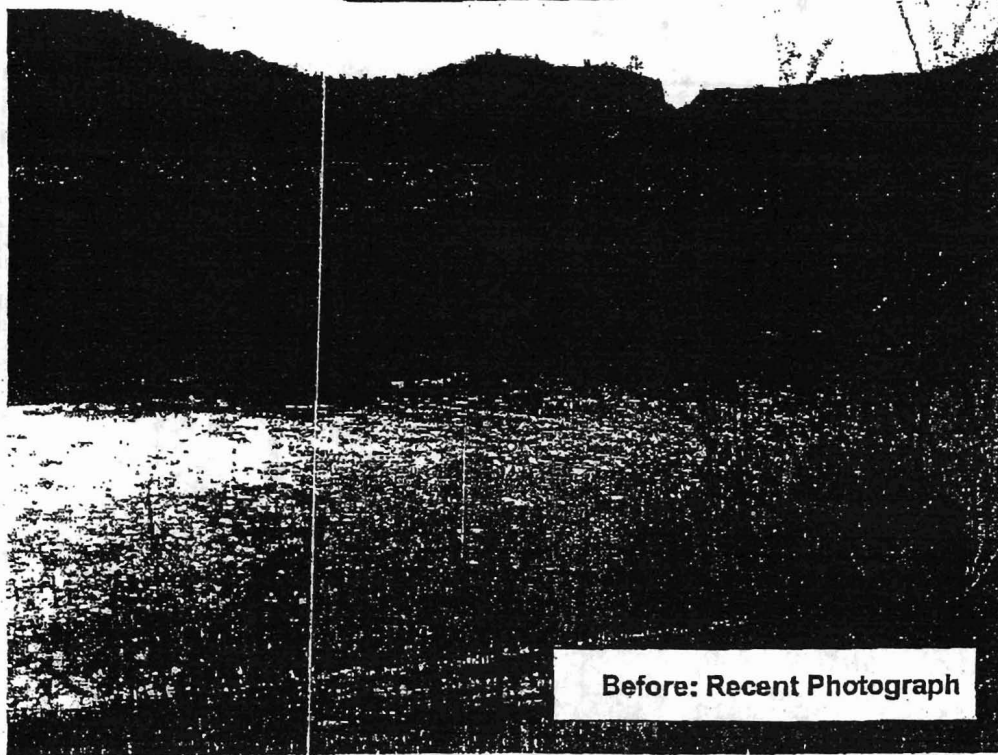


Figure 1.1-1. Vicinity Map

EXHIBIT

'B' BDD Print

*Proposed Action and Alternatives*



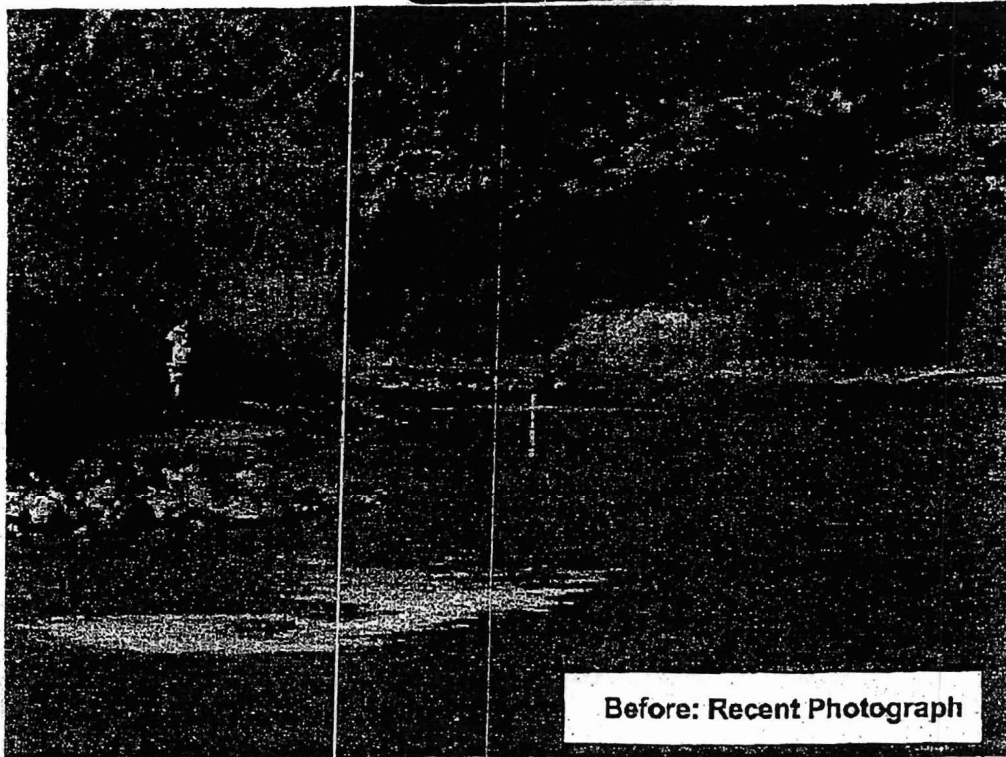
**Figure 2.3-1. Photographic Simulation of the Project Site Showing Conditions Before and After Construction of the Diversion Structure, View from the Opposite River Bank.**

EXHIBIT

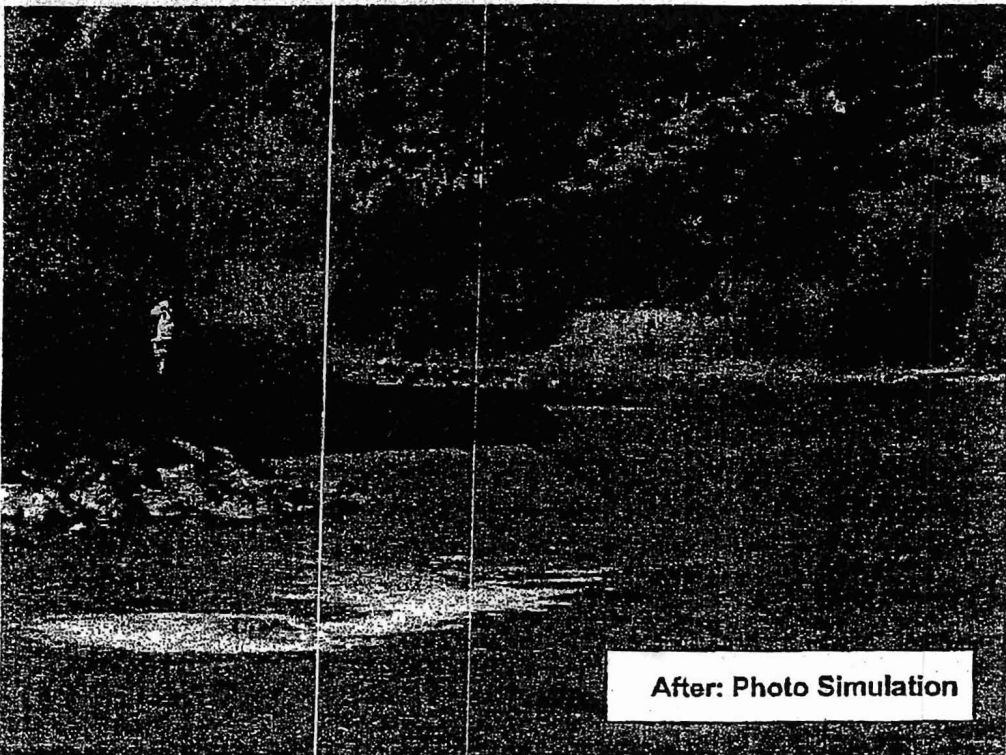
'C' BDD Permit

Proposed Action and Alternatives

1  
2



Before: Recent Photograph



After: Photo Simulation

*Figure 2.3-2. Photographic Simulation of the Project Site Showing Conditions Before and After Construction of the Diversion Structure, View Looking Downstream.*